

Draft

Environmental Assessment

Columbia County Shooting Range

Mud Lake Wildlife Area

Section 28, Town of Lowville, Columbia County

Prepared by:

Wisconsin Department of Natural Resources

Prepared for:

U.S. Fish and Wildlife Service, Region 3

Wildlife and Sport Fish Restoration Program

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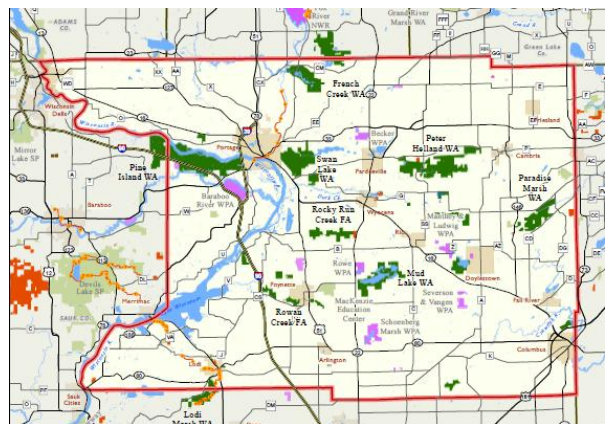
Note to reviewers: This Environmental Assessment (EA) has been prepared by the Wisconsin Department of Natural Resources (WDNR) to be consistent with National Environmental Policy Act (NEPA) and Wisconsin Environmental Policy Act (WEPA) requirements for environmental review. NEPA requirements are relevant since WDNR is seeking federal Pittman-Robertson (P-R) funds for the project. The US Fish and Wildlife Service administers PR funds and will ultimately decide if NEPA and other applicable federal regulations have been met before a funding decision is made. The purpose of this EA is to inform decision-makers and the public of the anticipated effects on the quality of the human environment of a proposed action or project and describes the alternatives that were considered to the proposed action or project. The EA is an informational tool that does not compel a particular decision by the agency or prevent the agency from concluding that other values outweigh the environmental consequences of a proposed action or project. Comments should be sent to:

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CHAPTER 1 PROJECT SUMMARY, PURPOSE AND NEED

1.1 PROJECT SUMMARY

In 2012, the Natural Resources Board approved the Columbia County Planning Group (CCPG) Master Plan, see Attachment A, for DNR-managed wildlife and fishery lands in Columbia County. The plan identified public safety and neighboring landowner concerns associated with target shooting in parking lots on the



Swan Lake (12N-R9E, Sec. 15) and French Creek (T13N-R9E, Sec. 13) wildlife areas and identified the need for a public shooting range in Columbia County. The specific language in the plan indicated:

Shooting Ranges

(From: Columbia County Planning Group Master Plan, pg. 43)

“There is significant demand for a public shooting range in Columbia County. Several parking lots at the Swan Lake WA and French Creek WA are heavily used for recreational shooting and target practice by locals and out of county individuals. These activities have generated concerns about public safety, quality of life (e.g., noise and litter) and inquiries by local elected officials and law enforcement.

The Department recognizes the need for a designated and managed public shooting facility in the county. DNR staff are collaborating with local officials and interested sporting groups to establish a public shooting range that meets the generally accepted siting criteria. Several of the CCPG properties were considered in these deliberations, but none were selected. Establishing a shooting range on a CCPG property will require an amendment to this master plan. If a public shooting range is established in the county, the DNR will evaluate options to address concerns about target shooting on these wildlife areas.”

In addition to addressing the recommendation of the master plan to establish a target shooting range in Columbia County, promoting hunting, shooting sports and hunter safety is a long standing Department of Natural Resources objective. One ongoing element of this effort is to provide public shooting ranges (rifle and pistol) that are accessible to those with physical limitations, environmentally friendly and provide safe locations for hunters and shooters to shoot and sight-in rifles and handguns.

In order to narrow down the options for a shooting range in the County, an ad-Hoc work group was formed including representatives from the Wisconsin DNR, local elected officials (1 from each Town where a potential site existed, as well as a representative from the County Board), Columbia Counting Sporting Alliance, Conservation Congress and other conservation organizations from Columbia County. The Ad-Hoc group worked through a

process to develop additional evaluation criteria and ultimately narrowed the seven sites to two potential locations, Dekorra Wildlife Area and Mud Lake Wildlife Area. DNR held a public input process to obtain citizen feedback on the two sites which involved Department staff attending town board meetings in each town, an open house held in Portage to answer questions as well as an online survey which collected feedback for 30 days.

Following the public input process, the Ad Hoc committee recommended that their preference was for DNR to consider the Mud Lake Wildlife Area on King Road in south central Columbia County first and the Dekorra site second.

Therefore, the Wisconsin Department of Natural Resources is investigating the proposal to develop the Columbia County Shooting Range on Wisconsin DNR owned and managed property identified as the Mud Lake Wildlife Area located at T11N-R10E, Sec. 28, Town of Lowville, Columbia County. The specific site is located approximately 4.2 miles east of the Village of Poynette and .75 miles east of State Highway 22 on the south side of King Road. (Lat/Long 43.396063, -89.312269) See Attachment B, Location Map.

The proposed range would consist of four individual shooting lanes with approximately 6 shooting positions each: a 25 foot range; a patterning range; a 50 yard range; and a 100 yard range. Backstops and separation berms would consist of on-site sand materials. Each berm and backstop would be 20' tall with a top width of 10' and a base (bottom) width of 45' wide. These appropriate backstops and longitudinal berms would allow multiple users to occupy and use each lane simultaneously. The new site would include a gravel parking area with an ADA compliant pit toilet and sidewalks.

Range construction would be completed by the Wisconsin DNR operations crew or with a private vendor through a bidding process with DNR oversight to assure compliance with site development plans, environmental and grant commitments. Operation and maintenance (O&M) would be handled by the Wisconsin DNR with a goal of working in conjunction with local groups interested in assisting with the management of the site. O&M responsibilities would mainly consist of litter control, berm and shooting lane mowing (if needed), periodic spent (lead) bullets & brass casing recovery/recycling, shooting bench and target support replacement, pit toilet housekeeping,

septic pumping, and other activities needed to keep the range in good condition.

1.2 PURPOSE

The purpose of the project is to develop a safe and available public shooting range facility in Columbia County. The shooting range would provide a common place for experienced hunters or law enforcement to refine their skills. This range would also provide a place to promote effective training and education for responsible new hunters and their mentors including youth groups and hunter safety courses.

The purpose of this EA document is to look at the feasibility and potential for environmental consequences associated with the site selected by an ad-hoc shooting range committee.

1.3 NEED

Promoting hunting, shooting sports and hunter safety is a long standing objective within WDNR. Providing the public with accessible, environmentally friendly and safe public shooting ranges to shoot and sight-in rifles and handguns is one element of this objective. The Milwaukee Journal Sentinel quotes WDNR Secretary Cathy Stepp:

"The best place for someone to learn to shoot and to practice shooting is at a well-managed and maintained range"... "The Shooting Range Grant Program will help range operators and clubs provide high quality shooting opportunities around the state."

With an estimated 800,000 shooters and hunters in Wisconsin and recent strong growth in interest in shooting, providing access to safe places to shoot is a priority for WDNR.

Wisconsin has more than 600 shooting ranges, including 33 on public land (state, county or municipality), according to DNR records. Keith Warnke, DNR hunting and shooting sports coordinator, said one of the most obvious needs is to increase opportunities for shooters and hunters close to home.

The adage that "practice makes perfect" is particularly important

considering the safety risk associated with firearm use.

Currently, no public shooting range exists in Columbia County and the surrounding area. The Wautoma shooting range is the closest public shooting range which is approximately 60 miles from Poynette and the Yellowstone Wildlife Area range is approximately 67 miles away. In 2012, the board approved the Columbia County Master Plan for DNR-managed wildlife and fishery lands in the county. The plan identified public safety and neighboring landowner concerns associated with shooting in parking lots on the Swan Lake and French Creek wildlife areas and identified the need for a public shooting range in Columbia County.

Shooting Ranges

(from: Columbia County Planning Group Master Plan, pg. 43)

“Several parking lots at the Swan Lake WA and French Creek WA are heavily used for recreational shooting and target practice by locals and out of county individuals. These activities have generated concerns about public safety, quality of life (e.g., noise and litter) and inquiries by local elected officials and law enforcement.”

In addition to the need identified in the Columbia County Planning Group masterplan, Columbia County falls within a high priority area for range development in the “Strategic Guidance for Shooting Ranges in Wisconsin – 2014 – 2019”,(Attachment C). Within this strategic guidance, the goal is to increase opportunities for shooting in a safe environment within a reasonable travel distance for participants and in a location intended for recreational shooting. All areas, including all of Columbia County, lying outside of a 100,000 resident buffer drawn around public shooting ranges have been identified as a high priority for the development of a shooting range.

1.4 BACKGROUND

Outdoor shooting ranges provide recreational facilities for millions of shooting sports enthusiasts in the United States. Ranges are especially important to Wisconsin constituents as demonstrated by Wisconsin range protection legislation. Senate Bill 527, also known as the Shooting Range Protection Bill, expanded the provisions of law concerning zoning conditions related to noise. This bill provides that a person who owns or operates a sport shooting range is not subject to state or local zoning conditions or rules related to noise and non-conforming use. SB 527 also protects the

range owner or operator from civil liability, ensuring the future of Wisconsin's shooting ranges. This bill passed the legislature with wide margins, 19 – 13 in the Senate and 65-30 in the House. It was signed into law by Governor Walker on April 9, 2014.

DNR is interested in increasing the number of properly designed shooting ranges in Wisconsin to enhance hunter skills and safety. A side benefit is meeting an increasing demand for shooting practice as a public outdoor recreation pursuit.

Firearm use, while hunting or practicing, carries a high safety risk. Since 1967 DNR has had an established hunter education program that attempts to prevent firearms incidents in order to maintain a safe and successful recreational experience. Over the last 45 years the number of hunting accidents have progressively decreased while the number of hunters has increased.

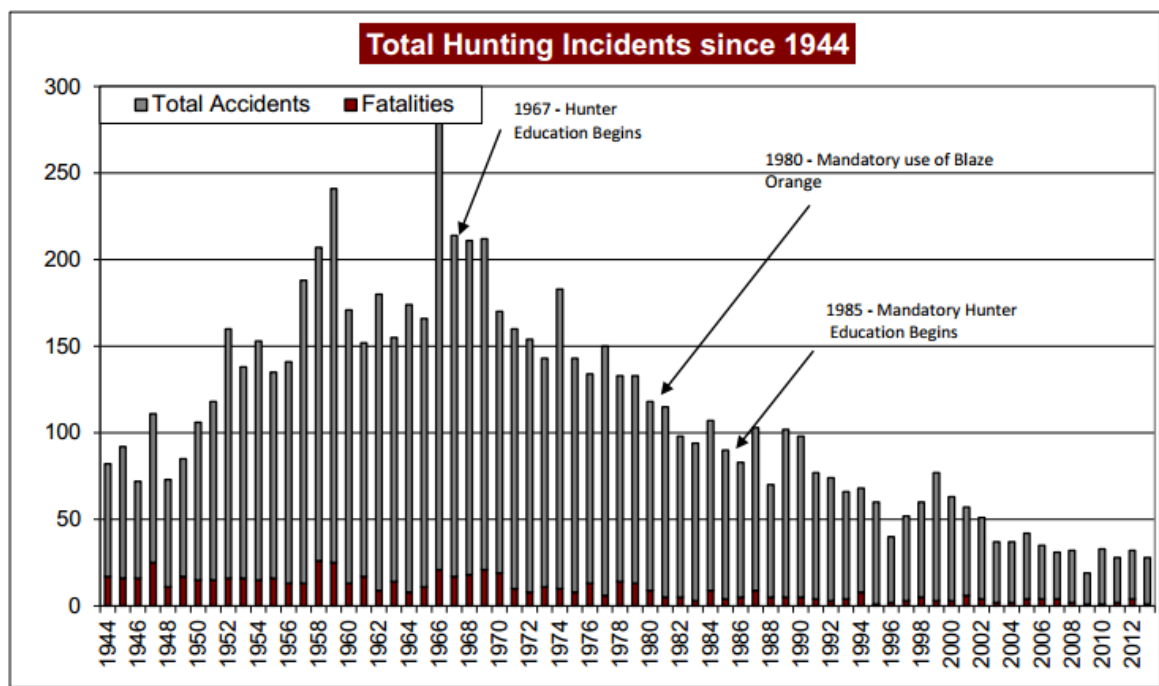


Figure 1

There were 27 total hunting incidents during the 2013 hunting season. One of the 27 incidents was fatal. Thanks to the efforts of Wisconsin hunter education programs, hunting is a safe activity in Wisconsin and is maintaining that safety record. In 2013, Wisconsin finished below the 10-year average of 29 incidents per year. New hunters are now required to complete a Basic Hunter Education course before they can purchase a

hunting license.

2013 Hunter Education Program Summary:

- 962 traditional hunter education courses
- 90 online Internet field day courses
- 88 adult test-outs
- 135 archery courses
- About 33,300 students certified
- 26,220 in basic hunter education, 2,007 through the Internet field day,
- 2,762 adults certified and 2,375 students certified in archery.

WDNR currently have more than 4,100 active volunteer hunter education instructors, 500 Internet field day certified instructors, and 20 DNR employees who support the adult test-out program. Shooting practice is encouraged for graduates to continue to gain experience with safe firearm handling and shooting accuracy. **Ranges are an ideal practice training ground.** (Statistics taken from Wisconsin Hunter Education Annual Incident Report-2013).

Specifically within Columbia County, as a result of the long-standing interest to develop a shooting range in the county and the interest identified in the county as demonstrated by the volume of shooting in wildlife area parking lots, a variety of approaches have been pursued to develop a range. Following a decision by the Columbia County Board to not pursue the development of a range on Columbia County property, DNR staff responsible for property management of Columbia County wildlife and fisheries areas, reviewed and evaluated the DNR-managed properties in Columbia County to create a list of potential shooting range sites. The evaluation looked at a variety of elements for siting a shooting range including but not limited to:

- Minimize the number of residences within a 1,000-yard distance to minimize noise concerns
- Avoid wetlands or hydric soils or soils with hydric inclusions
- Avoid State Natural Areas
- Avoid archeological sites
- Direct road access is preferred

- Located adjacent to major highways and roads
- Minimize impact on other recreational users
- Minimize impact on blocks of wildlife habitat
- Topography that provides opportunities to use the terrain to shoot into or minimize potential noise concerns

This effort resulted in the identification of seven potential sites located in the Columbia County Towns of Dekorra, Lowville and Springvale.

An ad hoc citizen work group was formed in January 2014 to further evaluate the list of seven potential sites in Columbia County. The ad hoc citizens group ultimately identified Mud Lake Wildlife Area – King Road site as their preferred location to establish a shooting range. See Attachment A.

In addition to a need for statewide shooting ranges, DNR is interested in working with local partners to help develop and manage these (new or improved) ranges. In this situation, the Department will be reaching out to groups that have expressed an interest in assisting with the management and where possible, entering into agreements to provide financial assistance to the groups that are willing to meet the operational and management needs identified for the Columbia County shooting range.

In all of the alternatives identified, due to the fact that ground disturbance would be greater than 1 acre in size, a storm water permit would be applied for and Best Management Practices would be followed to control construction site erosion. Range construction would be supervised by Wisconsin DNR Lands and Facilities program engineers, Law Enforcement and Wildlife Management program staff.

CHAPTER 2 ALTERNATIVES, INCLUDING THE PROPOSED ACTION

2.1 Alternatives Considered but Dismissed from Detailed Analysis

All Wildlife and Fisheries Areas in Columbia County were initially evaluated following the criteria above and narrowed to a total of 7 sites. Following deliberations by the ad-hoc range committee, 5 of the sites were eliminated. Those 5 sites and the pros and cons of each which were identified by the committee and ultimately resulted in their dismissal from

further consideration, are summarized below.

Hinkson Creek Fisheries Area (T11N – R09E, S. 21)	
Pros	Cons
Topography	Residences are close, and close to Poynette
Not too far from Poynette	Takes up main parking area for access to the stream.
Relatively close to the Interstate and relatively easy to find	A house in the area was hit by an errant bullet - higher sensitivity
Close to the MacKenzie EEC	Shooting noise may impact quality of fishing experience.
Centrally located in the county	Located on an isolated/remote township road.
	Archeological site identified on the site.

Jennings Creek Wildlife Area (T12N – R11E, S.35)	
Pros	Cons
Topography - Would be shooting into a hill.	Residences are close to the site
A parking lot is currently established on the site	A campground is approximately .6 miles from this location.
Not too far off a county highway	This portion of the property is heavily hunted.
Centrally located in the County	Remote/lightly travel location - dumping could become a problem.
	Difficult to find for new users.

Mud Lake Wildlife Area - Hagen Rd (T11N-R19E, S.14)	
Pros	Cons
Close the MacKenzie EEC	Concerns regarding the WA have been expressed by neighbors in the past
Underutilized portion of the property	Residences are ~300 yards from site.
Centrally located in the county	Soil types may be challenging for construction.
	Potential concerns from waterfowl hunters due to the proximity of an important waterfowl hunting area
	The trail through the site is heavily used by bowhunters and other outdoor recreationalists
	Lots of tree clearing would be required.
	Direction of shooting may be challenging due to potential down-range issues.

Peter Hellend Wildlife Area - Sawyer Rd (T12N-R11E, S. 4)	
Pros	Cons
Remote Location - distant from residences	Remote Location - Dumping potential
Topography	Main hunter access location - waterfowl specifically
The property has no history of dumping	Not on a main highway - difficult to find
	20 minute drive from Portage

Rowan Creek Fishery Area - CTH CS (T11N-R09E, S. 32)	
Pros	Cons
Access - Directly off CS and Close to the Interstate	Residences are approximately 220' from site
Easy excavation	1.5 miles from the Columbia County Sportsman's League location that were shooting was shut down by court order.
Amenities are close (gas, food, etc.)	Close to Poynette.
A proposed change to commercial zoning on the adjacent property may reduce conflict.	Flat Topography
Close the MacKenzie EEC	Size and Soils are questionable
Centrally located in the county	Takes up main parking area for access to the stream. This parking lot is also heavily used by non-consumptive users, dog walker's, bird watchers etc.
	Shooting noise may impact quality of fishing experience.
	This area is likely to be a future crossing of the property by the county snowmobile trail system
	Concerns about adjacent development in the area.
	Township has identified the adjacent area as an economic development area.
	Residences are close

Following the elimination of five of the sites, the ad-hoc committee conducted an on-line survey to receive input on the two remaining sites, Mud Lake Wildlife Area – King Road and Dekorra Public Hunting Grounds. The pros and cons of each of those two remaining sites are identified below.

Mud Lake Wildlife Area – King Rd (T11N-R10E, S. 28)	
Pros	Cons
Second least intrusive of the options	Wet soil conditions on portions of the

provided to neighboring landowners - only 2 houses within 1,000 yard distance	property indicate potential wetland areas.
Close to MacKenzie EEC	SNA is approximately 660' away.
Easy access off of STH 22	The area was identified for different management in the recently completed MP
Adjacent area heavily hunted for pheasant. Proposed footprint is lightly hunted.	If site is chosen, the township may request fencing around the parking lot.
Topography - Hill provides a safe location	Site development will need to avoid disturbing Conservation Rd. due to Town request
Discussed previously with township	
Centrally located in the county	

Dekorrra Public Hunting Grounds (T11N-R8E, S. 13)	
Pros	Cons
Topography may limit noise transfer and allow shooting into hillside	Heavy hunter use on the property
Location is highly disturbed adjacent to interstate	Access from the wayside and for the public are currently not allowed and would be challenging
Houses are not adjacent to the parcel - on back side of the hill	Security of the wastewater treatment plant may need to be addressed.
	Endangered species present on the site.
	There are approximately 68 residences within a 1,000 yard distance from site.

A total of 256 people completed an on-line survey which was available from March 13, 2014 – April 15, 2014 with 18% preferring the Dekorrra PHG site and 68% preferring the Mud Lake WA site. Following a review of the survey information, the ad-hoc committee recommended that a range be developed at the Mud Lake WA – King Rd site. Survey results are attached as Attachment D.

2.2 Alternatives Carried Forward for Detailed Analysis

2.2.1. Alternative A – Mud Lake Wildlife Area – King Road (Proposed Action)

See Chapter 1, Project Summary.

This proposed action would provide a long term shooting range serving hunters, enthusiasts, and law enforcement. This location can support the appropriate berm heights, individual shooting lanes and a gravel parking lot with ADA accessible pit toilets.

The proposed action would construct a new range to include a patterning range, 50 feet, 50 yard, and 100 yard target distances. Each distance would be separated by an earthen berm 20 feet in height. Each berm would have a 10 foot flat top to allow mower access, and the sideslopes would be 1:1. Berms would be finished with topsoil and seeded. The bottom of each shooting lane would be finished with topsoil, seed and hydromulch to establish turf.

On-site construction materials would be used to construct the berms and when necessary, additional material would be brought in from an off-site location. Each shooting lane would have their own individual shooting benches and target supports.

Best Management Practices would be followed to control construction site erosion. Range construction would be supervised by Wisconsin DNR Lands and Facilities program engineers, Law Enforcement and Wildlife Management program staff.

The facility would be open to the public all year as seasonal weather allows. The range would be unmanned however the Wisconsin DNR is interested in pursuing a management agreement with groups from Columbia County that may be interested in assisting in the management of the site. Range Operation and Maintenance (O&M) would be provided by Wisconsin DNR staff.

2.2.2 Alternative B - No Action.

This alternative would not develop a new range in Columbia County. It is expected that the recreational shooting and target practice that has occurred in several parking lots, including those at Swan Lake WA and French Creek WA would continue. These activities would continue to generate concerns about public safety, reduced quality of life (e.g., noise and litter) and inquiries by local elected officials and law enforcement. Safety, shooting skills, education and range accessibility needs would not be met. Having the ability to direct individuals to a designated and properly designed shooting range is expected to reduce the likelihood of haphazard target shooting occurring on public land around the county.

2.2.3 Alternative C – Dekorra Public Hunting Grounds

This proposed action would provide a long term shooting range serving hunters, enthusiasts, and law enforcement. This location can support the appropriate berm heights, individual shooting lanes and a gravel parking lot with ADA accessible pit toilets. Access to the site would be off of County Highway V and would require significant signage to direct users to the site. An access road off of the county highway would need to be upgraded in order to accommodate 2-way traffic into the site.

The proposed action would construct a new range to include a patterning range, 50 feet, 50 yard, and 100 yard target distances. Each distance would be separated by an earthen berm 20 feet in height. Each berm would have a 10 foot flat top to allow mower access, and the sideslopes would be 1:1. Berms would be finished with topsoil and seeded. The bottom of each shooting lane would be finished with topsoil, seed and hydromulch to establish turf.

On-site construction materials would be used to construct the berms and when necessary, additional material would be brought in from an off-site location. Each shooting lane would have their own individual shooting benches and target supports.

Best Management Practices would be followed to control construction site erosion. Range construction would be supervised by Wisconsin DNR Lands and Facilities program engineers, Law Enforcement and Wildlife Management program staff.

The facility would be open to the public all year as seasonal weather allows. The range would be unmanned however the Wisconsin DNR is interested in pursuing a management agreement with groups from Columbia County that may be interested in assisting in the management of the site. Range Operation and Maintenance (O&M) would be provided by Wisconsin DNR staff.

This site was not identified as the preferred alternative due to public response to the on-line survey. The principle concerns that were heard during that process included the noise concerns for the large number of residences within the 1,000 yard distance of the range, the lack of easy

access to the site from the interstate, as well as concerns regarding potential vandalism at the wastewater treatment facility located adjacent to the proposed site.

CHAPTER 3 AFFECTED ENVIRONMENT

3.1 PHYSICAL CHARACTERISTICS

Alternate A:

Construction activities for the proposed action (A) would mostly be confined to the non-wetland areas shown in Attachment A, Location Map. Upland within the project area consists of an old field meadow that transitioned to a deciduous hardwood forest within the central portion of the parcel. Dominant plant species primarily included Canada goldenrod (*Solidago canadensis*), multiflora rose (*Rosa multiflora*), wild parsnip (*Pastinaca sativa*), smooth brome grass (*Bromus inermis*), black locust (*Robinia pseudoacacia*), common buckthorn (*Rhamnus cathartica*), and Bell's honeysuckle (*Lonicera x bella*). Scattered black cherry (*Prunus serotina*) and boxelder (*Acer negundo*) are mixed with white ash (*Fraxinus americana*) along Conservation Dr., which leads to a small and unimproved parking area. The wetland portions of the parcel are dominated by silver maple (*Acer saccharinum*). The wetland located on the western side of the property is directly connected to a wetland complex to the west and to the south of the parcel and is influenced by an intermittent stream that runs parallel to the western boundary of the parcel identified. The wetland located on the east side of the parcel is a depressional silver maple community that continues east. King Rd. runs along the parcels northern boundary. The Property is relatively flat, sloping downward from the central area of the site to the west and to the northeast from topographic highs of approximately 970 feet mean sea level (msl) in the central area of the site to topographic lows of approximately 950 feet msl in the west and northeastern portions of the site.

Most of the vegetation located in the upland portions of the parcel would be cleared and grubbed to make room for the berms, shooting lanes and parking areas.

On-site topsoil would be temporarily stockpiled and subsequently spread on rough graded shooting lanes/berms for vegetation.

A wetland delineation was contracted with a private contractor and specific on-site posts and flagging were installed to accurately identify the boundaries of the wetland areas in order to avoid disturbance. See Attachment E, Wetland Delineation Report.

Wetlands exist on the periphery of the identified parcel of Alternative A and will be avoided during the construction process. Figure 2 is an overlay of the range area on a WDNR wetland inventory map.

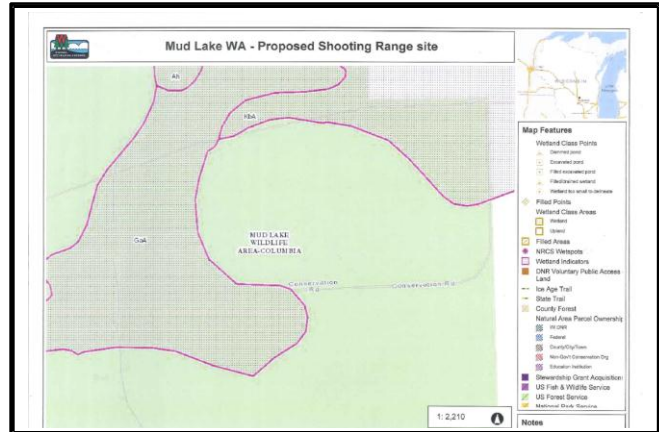


Figure 2 - Wetland Map at Proposed Action

The nearest body of water is Mud Lake which is north of the proposed shooting range, approximately .40 of a mile across King Road. The lake is approximately 2,165 acres. (T11N R10E S21 - 23) This lake is managed for wildlife, primarily waterfowl and the water quality is currently not considered impaired.



Photo of Mud Lake (WDNR Database)

3.2 BIOLOGICAL ENVIRONMENT (HABITAT/VEGETATION)

The proposed range site's topsoil would be windrowed or stockpiled during berm construction. The salvaged topsoil would be placed on the finished berms for vegetative establishment.

3.3 RARE SPECIES AND NATURAL COMMUNITIES

This section discusses the potential impacts to endangered resources that might be affected by construction or operation of the proposed Columbia County Shooting Range.

Endangered resources include rare or declining species, high quality or rare natural communities, and unique or significant natural features. Endangered resources are tracked via the state's Natural Heritage Inventory (NHI) database which is maintained by the DNR's Bureau of Natural Heritage Conservation. The project area evaluation consists of both the project area and a buffer of 1 mile for terrestrial and wetland species and a 2-mile buffer for aquatic species.

The combined presence of natural habitat and man-made disturbances must be taken into consideration to evaluate whether there is likelihood that rare species are present and the potential for negative impacts to those species. For the purposes of this document, rare species are defined as federal- or state-listed threatened and endangered species, federal candidate and proposed species, and state special concern species. These species are not common which means they are low in numbers or restricted to small geographical areas, i.e., difficult to find. Therefore, while the existing sources of information are important for estimating impacts to rare species, they are incomplete. Additional rare species beyond those identified may actually be present in potentially impacted areas.

Also, the Wisconsin NHI database only has information on rare species for areas which have been previously surveyed for that species or group, during the appropriate season and the observation recorded.

This section identifies the endangered resources that have been recorded in the vicinity of the project site, the project's potential impacts to these resources, and the mitigation measures that should be implemented. This list and information are taken from the NHI database.

State Rare Species and Natural Communities*

Taxa Group	Protected Status		
	State Endangered or Threatened	State Special Concern	Not Applicable
Birds	1	1	
Reptiles		1	
Natural Communities			2
Summary	1	2	2

*There are no federally endangered or threatened species or federally proposed or candidate species present in the area.

3.3.1. Birds

Almost all native bird species are protected by the Migratory Bird Treaty Act (MBTA). Under the MBTA, it is unlawful to take, capture, kill, or possess migratory birds, their nests, eggs, and young. This may apply to birds nesting in or adjacent to the project area if construction disturbance results in nest abandonment.

Important Bird Areas (IBAs) are designated by the National Audubon Society, Inc. and managed in partnership with the WDNR and other stakeholders. These sites are of ornithological importance because they provide essential habitat to species of breeding or non-breeding birds of conservation concern. The Northern Empire Prairie IBA overlaps the project site.

Due to the MBTA and the presence of an IBA at the site, it is recommended that impacts to nesting birds be avoided by conducting construction activities in areas of suitable habitat (particularly tree removals) outside the breeding and nesting season which runs from approximately March through August.

One endangered and one special concern bird species were documented within the vicinity of the project area. The Endangered bird species prefers large shallow marshes with abundant vegetation adjacent to open water. The Special Concern bird species prefers freshwater wetlands dominated by bulrush and cattail with small groves of alder, willow, or other brush.

A wetland delineation was completed on the project area and wetland areas are planned to be avoided during project construction. Additionally, areas of open water will not be impacted by the project. If wetland areas are able to be avoided, suitable habitat for these species will not be impacted by this project and no further action will be necessary.

If wetland areas are not able to be avoided, habitat assessments should be conducted to determine if suitable habitat exists at this site for these two bird species. If the habitat assessment indicates that suitable habitat does exist, the work should be conducted outside of the avoidance periods for these two species. The required avoidance period for the endangered bird species runs from May 15th through July 31st. The recommended avoidance period for the Special Concern bird species is from April 15th through July 31st.

3.3.2 Reptiles

A Special Concern turtle has been recorded within the vicinity of the project area. This species nests within 900 feet of suitable wetlands and waterways. This turtle species overwinters in standing water that is typically more than 3 feet deep and with a deep organic substrate but will also use both warm and cold-water streams and rivers where they can avoid freezing.

A wetland delineation has been completed for the project area and wetland areas will be avoided during project construction. Since the site does not contain permanent areas of standing water, there is no suitable overwintering habitat at the site. The remaining areas of concern are non-overwintering areas and upland areas.

The simplest and preferred method to avoid take of this turtle, is to avoid directly impacting individuals, known locations, and areas of suitable habitat. If suitable habitat cannot be avoided, the following measures will be implemented to avoid impacts:

Non-overwintering areas – If wetland areas are not able to be avoided, the following measures will be followed. For wetlands / water bodies shallower than three feet at the deepest point, conduct work outside of the turtle's

active season (**March 15 – October 15**). The installation and maintenance of exclusion fencing using the WDNR [Amphibian and Reptile Exclusion Fencing Protocol](#) is an avoidance option that can be used during this period as long as the exclusion fencing is installed **between October 16 and March 14**. Work can then be conducted within the fenced area at any time of year as long as the fencing is maintained.

Upland nesting habitat – Avoid work in suitable upland nesting habitat (sandy and/or well-drained soils) within 275 m (900 ft) of a wetland or water body during the turtle’s nesting period (**May 20 – October 15**). The installation and maintenance of exclusion fencing using the WDNR [Amphibian and Reptile Exclusion Fencing Protocol](#) is an avoidance option that can be used during this period as long as the exclusion fencing is installed **between October 16 and May 19**. Work can then be conducted within the fenced area at any time of year as long as the fencing is maintained.

3.3.3. Natural Communities

Natural communities may contain rare or declining species and their protection should be incorporated into the project design as much as possible. Minimizing impacts to and/or incorporating buffers along the edges of these natural communities will occur in order to avoid impacts. Two wetland natural communities were identified in the NHI database within the vicinity of the project area.

One of the wetland natural communities is an open, marsh, lake, riverine and estuarine community with permanent standing water, dominated by robust emergent macrophytes, in pure stands of single species or in various mixtures.

The other wetland natural community is an herbaceous community of aquatic macrophytes that occurs in lakes, ponds, and rivers. Submergent macrophytes often occur in deeper water than beds of floating-leaved or emergent species, but there is considerable overlap. This community type can also be found in deep water wetlands and flowages that have little moving water present.

A wetland delineation was completed for the project area and wetland areas are planned to be avoided during project construction. This fact, along with the absence of permanent standing water, indicates that these two natural communities will not be impacted and no further action will be necessary.

If wetland areas are not able to be avoided during project construction, impacts to these natural communities should be minimized and/or buffers should be incorporated along their edges.

3.3.4. Additional Recommendations

Wetlands are located north of the project site and a wetland delineation is planned for the project site as well. It is recommended that backstops and berms be placed in such a way as to maximize the distance from known or newly recorded wetlands in order to reduce impacts to these areas from accumulation of spent lead. Additionally, it is recommended that periodic recovery and recycling of lead be conducted in order to reduce the potential for lead contamination entering the wetland areas.

3.4 LAND USE

The proposed site for the development of the shooting range is located on Mud Lake Wildlife Area. In order to establish the range on the wildlife area, a master plan amendment will need to occur to change the management classification from "Habitat Management Area" to a "Special Management Area". This potential habitat classification change would not change the overall goal and objective of Mud Lake Wildlife Area and a shooting range would be an allowable use on a wildlife area that would have a minimal impact on the primary adjacent use of pheasant hunting on this particular property.

The area outside of the wildlife area boundary is all classified as A-1 Agricultural which should not be negatively impacted by the presence of a shooting range.

The nearest residence to the proposed shooting range is approximately .4 miles. Occupants of at least one nearby residence have expressed concern

about the development of the range with specific concerns regarding the increase in noise, impacts on wildlife as well as potential negative impacts on land values.

3.5 CULTURAL/PALEONTOLOGICAL RESOURCES

The Wisconsin Historical Society, Museum Archaeology Program completed a Phase I site identification survey of the Mud Lake WA – King Rd project area. The project area consists of a small hill, which is mainly grassland on the west and dense woods/brush to the east. The far western footslope is low and wet, the location of an intermittent stream draining north into Mud Lake. The eastern footslope is also low and wet with standing water at the southwest intersection of King Road and Conservation Lane. The upland portion was investigated by shovel testing at a 15 m interval.

A historic Euro American farmstead was identified across approximately three acres (about 260 x 460 feet) of the area. The farmstead is located off of a driveway that extends north from Conservation Lane. At least eight structures were identified. These include a house foundation constructed of mortared limestone.



Other barns and outbuildings are constructed with concrete foundation walls or concrete slabs. A circular depression near one foundation may represent a silo. A smaller circular depression adjacent to the house is interpreted as a cistern. A possible well is indicated by an open depression built with large boulders located just to the west of the driveway. Several small depressions located near the house were investigated as possible privies but none were identified. Additional historic trash was observed at the northeast footslope.

Generally light densities of artifacts were recovered during the systematic shovel testing. A majority of artifacts were recovered from shovel tests excavated within the house foundation and adjacent cistern. Recovered artifacts include a mix of construction and domestic items totaling around 100. The assemblage consists primarily of construction related items such

as nails (wire and machine cut), mortar/plaster, tiles and brick, window glass. A few ceramics (whiteware, porcelain and stoneware) were recovered. Other items include plastic and organics.

Based on deed research and plat maps, the site has been owned/occupied by four owners prior to it being acquired by the State of Wisconsin Conservation Commission (WisDNR) in 1964. The property was initially acquired by Silas W. Herring as a patent deed in 1849. A house/farm is indicated on the 1861 plat (the earliest available) and remains present on all subsequent plat and topo maps until the 1960s.

Based on the long Euro American occupation record and mixed artifact assemblage the site does not appear to be eligible for listing on the National Register of Historic Places. No additional archaeological investigations are recommended at the site. The Request for State Historical Society Comment and Consultation form is attached as Attachment E. The complete Phase I Archeological Site Identification Survey is attached as Attachment F.

3.6 LOCAL SOCIO-ECONOMIC CONDITIONS

The project area is rural with agriculture as the primary business in the immediate area. Attachment A identifies the residences within a 1,000 yard distance around the parcel identified for development of the range.

The project would result in increased traffic to the shooting range. The average daily traffic count for King Road, as provided by the Columbia County Highway Department from State Highway 22 to Conservation Drive was 75 vehicles per day in the mid-1990s. To provide a perspective of the expected increased traffic, at the recently completed Yellowstone Wildlife Area range, the average vehicle count into the parking lot is 25 vehicles per day.

According to tests completed by the American Association of State Highway and Transportation Officials (AASHTO) and published in a WI Towns Association bulletin, the amount of damage a road sustains is directly related to the weight of the load and how often it is applied. Typically,

passenger autos and light duty vehicles are not a problem but rather it is trucks carrying legal weight loads of up to 80,000 GVW over weakened surfaces which do the damage. Some research has provided figures which show a single 18-wheeler loaded to 80,000 lbs. will do as much damage as 3,000 – 9,600 cars, depending on the design specifications of the road itself.

3.7 ECONOMIC ISSUES

The project would use federal Pittman-Robertson funds for range development. DNR will be requesting \$300,000 - \$500,000 to help complete this work. Range construction will temporarily provide jobs to contractors building the range.

CHAPTER 4 ENVIRONMENTAL CONSEQUENCES

4.1 POTENTIAL IMPACTS FROM RANGE DEVELOPMENT

Endangered/Threatened Species

Refer to Chapter 3.3. One endangered and one special concern bird species were documented within the vicinity of the project area. The Endangered bird species prefers large shallow marshes with abundant vegetation adjacent to open water. The Special Concern bird species prefers freshwater wetlands dominated by bulrush and cattail with small groves of alder, willow, or other brush.

Impacts to nesting birds will be avoided by conducting construction activities in areas of suitable habitat (particularly tree removals) outside the breeding and nesting season which runs from approximately March through August.

Environmental Justice

The development of a shooting range in Columbia County would have the potential to have a minor positive impact on Environmental Justice by providing a quality, free public shooting facility.

Economics

DNR would be using federal Pittman-Robertson funds for the construction of the range and associated entities including parking areas and pit toilets. DNR will be requesting \$300,000 - \$500,000 to complete this work. Range

construction would temporarily provide jobs to contractors building the range. Range users may increase sales at nearby communities such as Poynette, WI. Additional resources would be spent in the operation and maintenance of the facility.

Controversy - Controversy exists from a variety of angles regarding the development of a shooting range in Columbia County. Significant concern and controversy exists regarding the volume of target shooting that is occurring from wildlife area parking lots within the county, primarily on Swan Lake and French Creek Wildlife Areas. A site specific closure occurred at Swan Lake WA and site manipulation occurred at French Creek Wildlife Area which seems to have addressed most of the human health and safety concerns that have been expressed.

Some level of concern exists regarding the development of a shooting range on Mud Lake Wildlife Area without also taking additional action to address target shooting at wildlife area parking lots throughout the county. The Department has committed to addressing this issue through a NR 45 rule proposal that will be introduced in early 2015.

Although the preferred location for the shooting range as identified by the public involvement survey and consequently the ad-hoc committee was the Mud Lake Wildlife Area – King Road site, there is some concern about siting the range at that location. Specifically, increases in traffic and the impact the traffic will have on King Rd have been presented.

4.2 IMPACTS SPECIFIC TO ALTERNATIVES CONSIDERED

4.2.1 Alternative A - Proposed Action, Mud Lake Wildlife Area

Cultural Resources

Archeological features have been reviewed by the State Historical Society and no resources were identified and the site has been cleared for construction.

Habitat Impacts

Minor negative impacts would be expected. The historical use of the proposed site was a homestead prior to being left fallow. Although the adjacent area is heavily hunted for pheasants, the development of a range should not impact the pheasant hunting that occurs on the adjacent property.

Minor and temporary fugitive dust and equipment exhaust emissions would be generated during range construction. The contractors working on this project would be required to follow erosion control best management practices during construction.

Biological Impacts

Minor negative biological impacts would be expected.

Social Conditions

Alternative A would meet user needs, improve year-round public access, be handicapped accessible and improve hunter education opportunities.

Safety

There is a safety risk associated with shooter error, firearm malfunction and intentional shooter vandalism. Alternative A would improve safety over the existing condition of target shooting occurring at random wildlife areas around the county that do not have backstops and side berms.

Alternative A will have berms separating the shooting ranges reducing the risk of one user injuring another by stray bullets or ricochets when adjusting or checking targets. Construction of side and back berms and single direction shooting lanes would further help prevent stray fire from escaping the site.

Range use and shooting practice would help promote/retain firearm safety practices for hunters and other range users.

Intentional vandalism is always a possibility, especially in this case where the site will not be continuously manned and supervised. If vandalism becomes a problem increased surveillance from local law enforcement officials will be requested to discourage such activities.

Noise

Alternative A will cause increased use and an associated increase in shooting noise frequency at that location. The new facility would be open year-round from sunrise to sunset. Winter use is unlikely. Noise would be reduced for areas adjacent to the parking lots where target shooting is currently occurring. From a population density perspective, there is less

impact to adjacent dwellings for Alternate A than Alternate C. Therefore a positive effect can be recognized for Alternate A as the adjacent land is sparsely populated. A sound study was conducted by the Wisconsin Structures and Materials Testing Laboratory to establish baseline sound level in the surrounding area due to a typical hunting rifle of .308 caliber being fired at the shooting range location, under calm wind conditions (Attachment H). Following construction of the range, additional features may be added to the range to further reduce the level of noise disturbance associated with the range.

Land Use

Because Alternative A is a new location, ground disturbance and topographic changes are necessary. Primary land use adjacent to the proposed site is agriculture and conservation land and should not be negatively impacted by the development of the range.

Lead Recovery

Accumulation of spent lead in berms could create a risk of lead contamination to groundwater if left to accumulate on the site. This is not known to cause a problem at other Wisconsin land-based shooting ranges. Shooting ranges over water, particularly shotgun ranges, are typically discouraged due to concerns regarding breakdown of lead in water and 1) ingestion by wildlife feeding in such areas and 2) surface or groundwater contamination and associated negative human/biological health effects.

There is an unknown degree of lead contamination risk at this or at any other range site. In response, DNR will periodically complete lead reclamation through a lead recovery and recycling program from the berms around the shooting range.

Recreation

The new range under Alternative A would improve opportunity for year round recreational practice shooting for all users. The range will be accessible to all users including minorities and users with disabilities.

Cumulative Impacts

Cumulative impact has been defined in the National Environmental Policy Act as “the impact on the environment which results from the incremental impact of the action (in this case new shooting range development) when

added to other past, present and reasonably foreseeable future actions regardless of what agency or person undertakes such other action”.

Chapter 1 describes DNR interest in developing new shooting ranges across Wisconsin to promote hunting safety. No criteria have been set as to the demand for new ranges, how many should be built, location of such facilities, etc. Similarly DNR has no regulations regarding safe setback distances from other types of land uses. It is not expected that so many new ranges would be proposed in near proximity to each other that there would be an additive cumulative effect such as for safety or noise.

Alternatives A or C would not set a precedent resulting in substantial increased demand for such facilities elsewhere. But it would create a safer and more accessible facility to meet local and statewide shooting range demand.

No conflicts with local, state or federal plans or policies are expected. Lead deposition and cumulative spent lead build-up in earthen berms is not known in Wisconsin to present a serious risk of groundwater contamination or other environmental risk (see above Lead Recovery discussion). DNR would not support or seek federal funding for any new shooting ranges over water. At some future time DNR may want to consider a mandatory, unified lead recovery program for any ranges they seek to develop to help prevent or minimize lead contamination problems.

One possible cumulative effect is that shooting enthusiasts would become accustomed to the new range location and would frequent it more than random, uncontrolled locations in wooded property, gravel pits or open fields.

Controversy

The nearest residence to the proposed shooting range is approximately .4 miles. The occupants of a nearby residence have expressed concern about the development of the range with specific concerns regarding the increase in noise, impacts on wildlife as well as potential negative impacts on land values.

Regarding the concerns expressed about the increased traffic on the local

roads there are a variety of research results which provide some valuable insights. According to tests completed by the American Association of State Highway and Transportation Officials (AASHTO) and published in a WI Towns Association bulletin, the amount of damage a road sustains is directly related to the weight of the load and how often it is applied. Typically, passenger autos and light duty vehicles are not a problem but rather it is trucks carrying legal weight loads of up to 80,000 GVW over weakened surfaces which do much of the damage. Some research has provided figures which show a single 18-wheeler loaded to 80,000 lbs. will do as much damage as 3,000 – 9,600 cars, depending on the design specifications of the road itself.

Considering King Road, currently the average daily traffic count as provided through personal communications with the Columbia County Highway Department from State Highway 22 to Conservation Drive was 75 vehicles per day in the mid-1990s. To provide a perspective of the expected increased traffic, at the recently completed Yellowstone Wildlife Area range, the average vehicle count into the parking lot is 25 vehicles per day. As a result, based on the research from the American Association of State Highway and Transportation Officials (AASHTO), if the level of traffic use is similar to what we are experiencing at Yellowstone, the increased traffic on King Road due to the shooting range would be negligible.

Significance of Precedence

The development of a range is not a precedence setting action as there are numerous locations where the Department has worked with other entities to develop ranges or independently developed ranges, throughout the state.

Significance of Risk

The risk associated with this action is low as the Department has developed and operates numerous other ranges around the state and has had a minimal number of incidences of errant bullets when the range is designed to NRA design standards.

4.2.2 Alternative B - No Action

Cultural Resources

No known impacts as a result of this action.

Environmental Justice

Negative effect. Without the development of a shooting range in Columbia County, there would not be a free public shooting facility within a radius of 100,000 people. Those individuals without the financial resources to purchase range time or a membership to a private range will not have the opportunity to target shoot at a range.

Economics

No major impact. Federal funding could be used for other projects.

Habitat Impacts

Slight negative. Target shooting will continue at various wildlife area parking lots around the county. These sites lack the ability to effectively reclaim the lead that is being deposited at these sites while at a properly designed and managed range, the range design allows for proper lead reclamation.

Biological Impacts

None. No new disturbance would take place as a result of this action.

Social conditions

Long term adverse effect as there would be no sanctioned range for individual users, social groups or organizations such as hunter's safety training, boy scouts, or law enforcement training & practice.

Safety

In the short term safety would not change. It is speculated that safety overall would decrease as current users would shoot in uncontrolled or unimproved areas elsewhere.

Noise

Negative. Without the development of a range, it is likely that uncontrolled target shooting at unimproved sites will continue which has resulted in noise complaints, specifically from the residents of the subdivision adjacent to the Swan Lake WA parking lot.

Land Use - None.

Lead Recovery

Negative. Lead reclamation is not possible at the uncontrolled, unimproved sites around the county. At a well-designed and managed site, lead reclamation is a part of the standard operation and management of the facility.

Recreation

Negative. Adverse effect as there would be no sanctioned range for individual users, social groups or organizations such as hunter's safety training, boy scouts, or law enforcement training & practice. In addition, complaints have been received from other recreational users of the wildlife area when uncontrolled target shooting is occurring at wildlife area parking lots in the county.

Cumulative Impacts

None identified by this action.

Controversy

No change. Long term and on-going controversy will continue by not providing a range suitable for current users of the range.

4.2.3 Alternative C – Dekorra Public Hunting Grounds**Cultural Resources**

Unknown however no impact is expected.

Habitat Impacts

Slightly greater than Alternative A due to higher habitat quality.

Biological Impacts

Negative impact due to the loss of grassland habitat and the presence of an endangered species at the site which is dependent on grassland habitat.

Social Conditions

Same as for Alternative A.

Safety

Generally same as for Alternative A.

Noise

Potentially more negative than Alternative A due to the higher volume of residences within the 1,000 yard distance of the range. It should be noted that comments have been received which indicate the increase noise would be unnoticeable due to the presence of the interstate adjacent to the site.

Land Use

Same as for Alternative A.

Lead Recovery

Same as for Alternative A.

Recreation

Generally same as Alternative A.

Cumulative Impacts

Same as for Alternative A.

Controversy

Slightly higher due to the number of residences within 1,000 yard distance of the site.

4.3 Summary Comparison of Environmental Consequences by Alternative

Impact type	Alternative A (Mud Lake WA)	Alternative B (No Action)	Alternative C (Dekorrra PHG)
End./Thr. Species	None	No effect	Negative
Cultural Resources	None	No effect	None
Envir. Justice	Positive	Negative	Positive
Economics	None	No effect	None
Habitat	No effect	No effect	Minor negative
Biological	No effect	No effect	Minor negative
Social Conditions	Positive	Negative	Positive
Safety	Positive	Negative	Positive
Noise	Negative	Negative	Negative
Land Use	No effect	No effect	No effect
Lead Recovery	Positive	Negative	Positive
Recreation	Positive	Negative	Positive
Cumulative	No effect	No effect	No effect
Controversy	Minor Negative	Negative	Negative

CHAPTER 5 LIST OF PREPARER(S)

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CHAPTER 6 CONSULTATION AND COORDINATION WITH THE PUBLIC AND OTHERS

The range site is owned by the Wisconsin DNR and is located in the Town of Lowville, Columbia County. A shooting range is an allowable use on a wildlife area that would have a minimal impact on the primary adjacent use of pheasant hunting on this particular property.

Significant public involvement has occurred to narrow down and select the preferred location for the establishment of a range in Columbia County. See Chapter 2 for additional information.

This environmental assessment will be made available as a draft document for public review and comments, further allowing identification of any controversy associated with the project. Per FWS instruction a news release will be sent by DNR to local and statewide media describing the project and requesting comments. If new issues or controversy emerge DNR will attempt to resolve them before forwarding the EA and grant application to FWS. All comments received and a description of any actions taken to resolve them would be forwarded to FWS as part of the final EA. FWS would make a final determination on the need for an EA and a decision on the grant application.

CHAPTER 7 PUBLIC COMMENT ON DRAFT EA/EA AND RESPONSE

<<<<Public comment will go here in final document>>>>

CHAPTER 8 REFERENCES CITED

Copies of references cited can be obtained from DNR contact person listed on page 1.

1. National Rifle Association Range Manual, 2012.
2. Natural Heritage Inventory (NHI) database, Wisconsin Dept. of Natural Resources
3. Hunting, Fishing and Trapping 2000 - A Report Addressing Long Term Planning for the Secretary's Issue of Hunting, Fishing and Trapping in Wisconsin, WDNR, 2000.
4. "Shooting ranges a big target for funding from DNR"; Milwaukee Wisconsin Journal Sentinel, June 29, 2013.
5. Wisconsin Hunter Education Annual Incident Report-2013, WDNR.

6. Best Management Practices for Lead at Outdoor Shooting Ranges, EPA-902-B-01- 001, June 2005, Region 2.
7. American Association of State Highway and Transportation Officials study
8. Outdoor Shooting Ranges: Best Practices, 2003, State of Minnesota, Department of Natural Resources.

ATTACHMENTS

Attachment A: Columbia County Planning Group Masterplan

Attachment B: Location Map

Attachment C: Strategic Guidance for Shooting Ranges in Wisconsin – 2014 – 2019

Attachment D: Online Survey Results Overview

Attachment E: Wetland Delineation Report

Attachment F: Request for State Historical Society Comment and Consultation

Attachment G: Phase I Archeological Site Identification

Attachment H: Mud Lake Sound Study